Abstract. The present paper attempts to draw attention on the textual values of the non-finite and verbless adverbial clauses. Although their overall distribution across registers is relatively small, they display a larger frequency in instruction text types and scientific writing. As elliptical structures, in terms of subject and predication, their thematic structure is also incomplete. Recovery of Theme both in unmarked and marked thematic structure is relevant for the Information structure within the clause as well as within the whole sentence. Moreover, in marked thematic structures, the textual Themes of such clauses function as linkers between sequences of propositional contents. The examples provided, excerpts from scientific articles and recipes, are meant to illustrate the relevance of these syntactic structures to meaning interpretation and textual cohesion.

1. OVERVIEW

– Studies in text linguistics or text syntax have consistently pointed out the importance of the sentence as the basic unit of the text;
– The choice and ordering of sentences in a text is relevant for the thematic and information structure of the text;
– The way in which sentences connect ensures cohesion and coherence of the text.

The present paper will focus on the textual values of non-finite and verbless adverbial clauses as sentence constituents in terms of circumstantial variables. Unlike nominal or relative clauses which are either verb controlled or head noun constrained, these adverbial clauses are not dependent on a particular constituent of the main clause, but rather “expand the meaning of the main clause by providing a circumstantial feature as: time condition, concession, thus enhancing the message”, Downing (2006: 209). Subsequently, their relationship to the main clause is looser and their position in the sentence is more flexible, as their initial, mid or final place does not influence the structure of the sentence taken independently. But if we are concerned with the meaning conveyed by the text and not by the meaning of individual sentences as they follow each other it is imperative to take into account the Hallidayan view that: “a text does not consist of sentences, it is realised by or encoded in the sentences”, Halliday & Hasan (1976: 2).
The importance of grammar across the boundaries of the sentence as a basic unit of analysis is also strongly emphasized by Chafe (1970: 95) “from a semantic perspective intersentential constraints play a role that is probably more important than under other views of language” and the place of a sentence in the whole discourse determines its grammatical features which in their turn are relevant to the meaning of the text and partake discursive particularities.

By analysing the complex sentence in terms of its constituents – independent clause(s) and dependent clause(s) – we will notice that the place of the dependent clause in a sentence influences the thematic and information structure of the sentence, relating it to the whole stretch of the text.

2. ADVERBIAL CLAUSES

From a semantic point of view the following adverbial clauses are distinguished: time, place, condition, concession, purpose, result and manner. From a structural point of view they can be: finite, non-finite and verbless.

The finite adverbial clauses are always introduced by subordinators, their subject is overt and the verb in the finite form signals tense and modality. Due to the explicitness of the syntactic structure these clauses express more clearly the variety of nuances of semantic relationships.

Finite clauses may take initial, mid or end position, with the exception of the clause of result, and they are widely used across registers although there are considerable differences of their distribution in terms of their textual function, for instance, place and time clauses used as temporal or spatial framings of the main propositional content in narratives or descriptive texts.

Non-finite and verbless are less commonly used than the finite ones1 and we distinguish only the following types: time, condition, concession, purpose, reason and manner.

3. STRUCTURAL PARTICULARITIES OF NON-FINITE AND VERBLESS CLAUSES

3.1 Non-Finite Clauses

Quirk (1972: 724) defines non-finite clauses as “means of syntactic compression” in which the verb, an ‘ing’, ‘ed’, or ‘to infinitive’, functions as

1 The authors of Longman Grammar of Spoken and Written English (1999: 826) have found, according to a corpus analysis of four registers – fiction, news, academic writing and conversation –, a high frequency of finite clauses in all four registers, a relatively high frequency of to-clauses in academic writing and quite a low frequency of other non-finite or verbless clauses in all four registers.
predicate and the subject is omitted. It is assumed that the subject can be treated as recoverable from the context, namely from within the same complex sentence, having the same reference as a noun or pronoun in the main clause.

If we consider the sentence:

Having had dinner, they decided to leave.

we can assume that the subject of the non-finite clause is they by looking forward in the text.

Some non-finite clauses are introduced by a subordinator, which makes the semantic value of the clause more explicit.

If we rephrase the above non-finite by:

After having dinner, they left.

the temporal relationship between the main clause and the subclause is clearly expressed.

But there are only three types of non-finite subclauses that are compulsorily introduced by a subordinator, those of condition, concession and manner / comparison, while with the clauses of purpose and time, the subordinators are optional. Other types of clauses as those of reason, proportion or the supplementives are not introduced by subordinators. This makes semantic interpretation on sentence level more difficult and the larger context, linguistic or non-linguistic, is needed to elicit the intended, appropriate meaning.

The following example from Quirk (1972: 763) is relevant for the ambiguity of interpretation:

I caught the boy smoking a cigar.

The subclause can be rephrased as:

a) who was smoking a cigar,

thus the clause is a reduced relative or as:

b) while I / he was smoking a cigar,

the clause expressing temporal relationship allowing for two possible subjects.

We have to note that as non-finite clauses can take initial or end position, the initial position of the above mentioned subclause results in an awkward sentence like:

Smoking a cigar, I caught the boy.

If we compare a completely similar structure to the above mentioned one, we notice that the initial or end position of the non-finite does not change meaning interpretation:

I was sipping my coffee smoking a cigar.

Smoking a cigar, I was sipping my coffee.

Still, message interpretation depends also on extralinguistic variables mostly in the case of spoken language when change of the place of a non-finite or verbless clause is augmented by stress or pattern of intonation.
3.2. Verbless Clauses

Verbless subclauses are less common than non-finite ones as far as the range of circumstances they express are concerned. Time, condition and concession clauses are most commonly identifiable as verbless, as in:

a) *When in trouble, ask for help.*

b) *If in a hurry, take a taxi.*

c) *Though old, he managed by himself.*

Verbless clauses do not have an overt subject and predicator. The “missing” constituents are assumed to be recovered from the context of the main clause. Usually the missing verb is “be” and the subject is identical with the subject of the main clause as in the proverb:

*When in Rome, do as the Romans do.*

which can be rephrased into:

*When you are in Rome, [you] do as the Romans do.*

Verbless clauses are always introduced by a subordinator, most commonly *when / until* for time clauses, *if / unless* for conditionals and *though / however* for clauses of concession. Verbless clauses, as all the other structural types, can take initial or end position, without any change of meaning as far as the semantic relationship between the main clause and subordinate clause is concerned.

4. THEMATIC STRUCTURE IN COMPLEX SENTENCES

In view of Hallidayan functional grammar (1994: 37), each clause, independent or dependent, except its syntactic organisation, displays a bipartite structure of the message it conveys. The point of departure which is marked by the initial element of the message is the Theme and the remainder of the clause which develops the message is labelled the Rheme. By comparing the Theme-Rheme structure to the syntactic structure, the SVOA structure, it follows that generally the subject takes Theme role and the rest of the clause performs Rheme role.

In an independent clause as:

*John kissed Mary yesterday.*

according to the neutral pattern *John*, the subject is the Theme, while the main body the VOA is the Rheme.

But as syntax allows for movement in the word order, for instance a ASVO word order, similarly the thematic organisation of the message allows for other constituents to perform Theme roles, cases in which we distinguish a different pattern that of marked Theme.

By extending the Theme-Rheme structure to the complex sentence, the same thematic structure can be applied.
If from a syntactic point of view the structure of a complex sentence does not undergo changes depending on the place of the subordinate clause, in terms of thematic structure the arrangement of the clauses makes it possible for either of the two types to perform Theme role. Thus right-branching, main clause followed by subordinate clause, respectively left-branching, subordinate clause initial position followed by main clause make the distinction between unmarked and marked thematic structure.

Subsequently, in a complex sentence we can distinguish between Theme and Rheme in terms of main clause and subordinate clause.

In the examples below, the first one has an unmarked thematic structure, while the second a marked one, depending on the position taken by the adverbial clause – end or initial position:

a) He couldn’t come because he was ill.
b) As he was late, he took a taxi.

But as each clause in its turn displays its own thematic structure in the case of the adverbial clauses we have to take into account “multiple themes” distinguished by Halliday (1994: 52-55) as: textual, interpersonal and topical, which do not exclude each other as they play different thematic roles.

In the case of finite structures the subordinating conjunction is the textual Theme, while next to it, usually the subject is the topical Theme.

In:

As he was late, he had to take a taxi.

as = textual theme,
he = topical theme.

The internal thematic structure of the subordinate clauses poses a particular problem in the case of non-finite and verbless clauses as in both types the subject, subsequently the topical Theme is missing. The question that arises is: where do we recover the Theme from?

To answer the question we have to take into account the position of the adverbial clause. In an unmarked thematic structure, with the subordinate clause taking final positions, the Theme can be recovered from the main clause either as being identical with the main clause Theme (example a) and ellipted to avoid redundancy, or it refers back to the whole main clause (example b):

a) You should call a taxi, when ready to go.
b) I can help you, if needed.

In example (a) by inserting you we identify the Theme, while in example (b) by rephrasing the non-finite clause the whole propositional content of the main clause functions as Theme (if helping you is needed or if you need help).

The relationship between the adverbial clause and the main clause is assumed to be tighter locally when the former takes final position (Downing, 2006: 276) which means that the clue for Theme recovery lies in the main clause.
In case of initial position, marked thematic structure, the adverbial clause is less integrated in the structure of the main clause, thus the Theme can be either recovered from the main clause, looking forward for clues, or from the previous text unit.

In proverbs, for instance, which have an independent propositional content, the topical Theme is recovered from the following main clause:

_When angry, count a hundred._

the pronoun you can be easily identified as subject, subsequently Theme position, while in a sentence as:

_If so, let’s go and help them._
due also to the clausal substitute **so** we have to resort to the previous’ text unit(s) to convey meaning by identifying the topical Theme.

The significance of the thematic structure marked or unmarked, emerges according to Halliday (1994: 61) “when we come to consider the importance of the clause theme in the overall development of the text“. The patterning of the Themes from one sentence to another, thematic progression, on the one hand is inherently linked to topic consistency, which in its turn is an important variable in ensuring coherence to the text, on the other hand it is closely related to Information structure signalling the **Given-New** sequence.

It is generally observed that in the case of unmarked thematic structure, the topical Theme of the main clause or a constituent of the Rheme of the main clause will appear as the topical Theme of the next sentence, thus displaying constant, linear or split progression (Bloor & Bloor, 1990: 3).

In terms of Information structure, the text moves from Given to New, the Theme of the main clause carrying the Given, and its Rheme conveying the New, while the adverbial clause carries subsidiary New information.

The marked thematic structure of a sentence within a text has to be considered in terms of the whole text. The Theme position of an adverbial clause most commonly connects previous text units to subsequent units and performs textual functions framing the discourse according to circumstantial variables.

In terms of Information structure, the subordinate clause carries Given information, but with a missing topical Theme and an incomplete Rheme Givenness is less explicitly signalled, therefore moving from sentence level analyses to working with the whole text appears to be more relevant in interpreting the meaning of the text.

### 5. DISCUSSION

To exemplify the interplay between thematic structure and information structure in text units which display non-finite or verbless clauses two text types will be discussed: **scientific articles** (Texts A) and **recipes** (Texts B) according to their unmarked or marked thematic structure.
5.1. Unmarked Thematic Structure

Texts A: Scientific articles

1. After a thorough review of the available evidence “significant concerns” regarding the safety carotid artery stenosis when performed in this older patient population have emerged.

2. Carotid stenting is only covered when used with an embolic protection device and is, therefore, not covered if deployment of the embolic protection device is not technically possible (from Vascular News, North America Edition, February 2007, issue 16).

The underlined non-finite clauses are introduced by temporal subordinators, and their respective subjects and finite verb forms are ellipted.

In their interpretation, the missing constituents have to be recovered by moving backwards in the sentence as they take mid position (1) and final position (2) in relation to the main clauses they are dependent on.

In recovering the subject of the time clause in Text (1) taking into account the meaning of the medical terms as well as the semantic relationships, we realise that the subject of the main clause “significant concerns” does not collocate with the verb “to perform” and that “carotid artery stenosis” is a heart problem which again cannot “be performed”. It follows that the theme has to be recovered from the previous paragraphs or even the title “CMJ Proposals Expanded Coverage for Carotid Artery Stenting”, which is a surgical procedure that can be performed. The finite form will then be:

When carotid artery stenting is performed,

thus both Theme and Rheme of the non-finite clause are explicit.

Text 2 is a typical case of unmarked thematic structure, the subject of the subclause identical with that of the main clause (carotid stenting) and the verb “be” ellipted.

But from the point of view of information the restrictive only in the main clause makes the propositional content of the non-finite clause combine temporal and condition circumstances and subsequently it completes the Rheme of the main clause. As the Rheme carries New information the non-finite clause carries subsidiary new information, but at the same time furthers the discourse by introducing another condition for the reverse situation (not covered).

Comment:

It is interesting to note that although time clauses are used to ensure the temporal sequencing of activities or events, in these two instances the temporal dimension expected to be dominant is diminished by a restrictive conditional value. At the same time recovery of the missing constituents, mostly the Theme, as well
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as their more like mid-position in the whole paragraph, then overt typical final position in relation to the dominant clause, makes us consider them textual connectors between stretches of discourse.

Texts B: Recipes

1. Melt butter in a saucepan, remove pan from heat and blend in flour, cook gently until straw-coloured, then add flavoured milk. Season, stir over gentle heat until boiling, then simmer for one minute.
2. Use cheese at room temperature. Blend with sour cream. Mince the pitted olives, add chives to the cheese. Chill until ready to serve or remove from refrigerator one hour before serving. Good used hot or cold (from Gateway Clubs in North Wales - Cookbook).

In recipes, end position verbless time clauses with “until” subordinator are most frequently used. The verb “be” is easily recoverable as the overt constituent of the predicate is either an adjective as subject complement or an ing or en verb. Recipes in British and American cookbooks, except the layout which is easily recognisable, are structured as instructions, making use of the Imperative in the main clause and very simple short sentences.

The relationship between the imperative and the non-finite / verbless clause poses problems concerning the identification of the missing subject. On the one hand we may take into account the semantic category of “cooking verbs” though most of them are ergative, but on the other hand textual analysis in terms of cohesion might prove more relevant.

Recipes display two dominant cohesive ties: lexical ties and ellipses.

In both texts the subject of the non-finite or verbless clause cannot be you identical with the implied subject of the imperative in the main clause. The subject of both verbless and the ing non-finite clause is the resulting mixture of the ingredients (butter, flour, milk, and cheese, sour cream, chives, olives), which is not overt at any time in the texts and the “mixture” can be identified gradually as we move towards the end and then relate it to what resulted as being named in the very beginning “French Brie Brilliant Dip”.

The last sentence in Text 2:
Good used hot or cold.

is elliptical on two levels: main clause and subclause. The main clause retains only the subject complement good and the non-finite clause the -ed passive. The full sentence would be:
It is good when / if it is used either hot or cold.

In this case the subject – in Theme position is the same in both clauses, which does not allow for ambiguity.
Comment:
The recovery of the missing constituents is possible by moving backwards in the text step by step and by putting into action not only linguistic or discourse knowledge but also general background knowledge.

The recipe examples prove that looking for individual overt constituents of the main clause or taking into account mechanically the implied subject of the imperative does not lead anywhere in filling in the gaps for thematic progression and subsequently topic consistency.

5.2. Marked Thematic Structure

Texts A: Scientific articles

1. Most scientific methods developed are equally applicable everywhere. In fact, plant breeding work is already in progress in most developing countries and has been begun in some instances by local workers on their own initiative or with the assistance of international bodies such as FAO.

   When starting breeding work to improve crop production, particularly of food crops, developing countries should follow simple and inexpensive methods which, in the great majority of the cases, are economic and efficient (Ewer, J. R., Latorre, G., 1969, A Course in Basic Scientific English, p. 115).

2. To test the two theories (Big Bang and the Steady State) it is necessary to look far back in time. If the Universe is evolving, it should have looked different in the distant – the galaxies must have been closer together (idem: 135).

The three non-finite clauses open the paragraphs of the texts which account for marked thematic structure. In Text 1 there are two circumstantial variables a temporal one introduced by “when” and a purpose one expressed by the infinitive.

In the first example, the quoted paragraph is the fourth in the text, and its topical Theme can be recovered both from the previous paragraph in which “developing countries” is mentioned in the Rheme of the independent clause, and from the following main clause as its subject.

The textual theme “when” links the propositional content of the previous sentence to what follows in the on-going paragraph.

The “to-infinitive” purpose clause initiates the discussion on the means to attain good crop productions by providing the necessary New information.

In Text 2, the purpose clause resumes the topical themes of the previous six paragraphs in which the two theories have been presented at length and frames the conclusive discussion by furthering the discourse into solving the conflicting debate.
Texts B: Recipes

Cheese Potato & Onion Pie

1. If using mashed potatoes mix in butter, salt and onion. 
   Sautee onion rings and garlic in vegetable oil.
2. ... Add mushrooms ½ hour before end of cooking time.
   Test to see if steak is ready.
   When ready, remove meat (from Gateway Clubs North Wales Cookbook).

The layout of the recipe text asks for the breaking down of the preparation in steps, each step being one sentence made up generally by a main clause and a short adverbial clause or two main coordinated clauses.

In Text 1 the conditional clause is the first entry of the recipe. Its subject is identical with the one in the main clause you and the missing verb is ‘be’. The problem which arises in interpretation is posed by the fact that it does not link to a previous stretch of text. As an opening sequence the conditional circumstance furthers the text and triggers the New information expressed by the main clause. On clause level in both cases the Given information you is missing and in their turn both clauses display explicit Rhemes which carry the New information. The pattern of the sentence as such observes the Given-New, Given-New sequence.

In Text 2 the verbless time clause occurs towards the end of the text. The topical Theme of the clause (steak) can be easily recovered from the previous sentence and the textual Theme (when) links the two sentences in a temporal sequence.

Comment:

In marked thematic structure non-finite or verbless clauses perform basically two functions: 1) as framing and initiating a following discussion which will convey main and New information; 2) as connectors between two units establishing circumstantial relationships between two propositional contents.

6. CONCLUSION

Although the distribution of non-finite and verbless clauses is relatively small, in certain text-types they are frequently used and their textual values are relevant to the appropriate interpretation of the text.

Thematic choice, the ordering of themes and theme ellipsis play an important role in Information Structure and in the overall organisation of a text. Thus Theme ellipsis leads to Given-information ellipsis prominence being given to New-information. The missing topical Themes can be recovered from the host main clause, but in most of the examples they were recovered from previous text units.
The fact that we resort to previous text units in order to interpret such clauses and
the fact that they are introduced by textual Themes lead us to conclude that such
clauses can function as cohesive circumstantial ties within a larger text.

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